

WHAT WE CLAIM IS:

1. An antimicrobial conveyor lubricant comprising:
- a) an alkyl phosphate ester,
 - 5 b) an aryl phosphate ester,
 - c) a quaternary ammonium antimicrobial agent, and
 - d) water.
2. The lubricant of claim 1 wherein said alkyl phosphate ester and said aryl phosphate ester are present in a weight to weight ratio of 1.5:1 to 10.0:1 with respect to the quaternary ammonium antimicrobial agent.
- 10 3. The lubricant of claim 1 wherein the total weight of said alkyl phosphate ester and said aryl phosphate ester are present in a weight to weight ratio of 2.0:1 to 10.0:1 with respect to quaternary ammonium antimicrobial agent, which is a linear quaternary ammonium antimicrobial agent.
- 15 4. The lubricant of claim 1 wherein sodium hydroxide is present in said lubricant.
- 20 5. The lubricant of claim 1 wherein a chelating agent for divalent cations is present in said lubricant.
6. The lubricant of claim 5 wherein said chelating agent comprises an amine-type acetic acid.
- 25 7. The lubricant of claim 1 wherein said aryl phosphate ester comprises a phenol ester wherein said phenol group is not substituted with alkyl groups.

8. The lubricant of claim 1 wherein the pH of the lubricant is less than 8.5.

9. The lubricant of claim 1 wherein the pH of the lubricant is between 4.5 and 8.0.

10. The lubricant of claim 1 comprising water, C₁₀₋₁₂ alkyl phosphate ester, 5 EO units, EDTA, alkalating agent, didecyl dimethyl ammonium chloride, C₁₂₋₁₅ linear alcohol, and phenol ethoxylated phosphate ester.

11. A process for lubricating a conveyor used to transport containers, said process comprising applying a composition to the conveying surface of a conveyor, said composition comprising:

- Sub
a4
- a) an alkyl alkoxylated phosphate ester,
 - b) an aryl alkoxylated phosphate ester,
 - c) a quaternary ammonium antimicrobial agent, and
 - d) water,

and then moving containers on said conveyor.

12. The process of claim 11 wherein said alkyl phosphate ester and said aryl phosphate ester are present in a weight to weight ratio of 1.5:1 to 10.0:1 with respect to the quaternary ammonium antimicrobial agent.

13. The process of claim 11 wherein the total weight of said alkyl phosphate ester and said aryl phosphate ester are present in a weight to weight ratio of 2.0:1 to 10.0:1 with respect to quaternary ammonium antimicrobial agent, which is a linear quaternary ammonium antimicrobial agent.

14. The process of claim 11 wherein sodium hydroxide is present in said lubricant.

~~15. The process of claim 11 wherein a chelating agent for divalent cations is present in said lubricant.~~

16. The process of claim 15 wherein said chelating agent comprises an amine-type
5 acetic acid.

SUB
a5 17. The process of claim 11 wherein said aryl phosphate ester comprises a phenol
ester wherein said phenol group is not substituted with alkyl groups.

10 18. The process of claim 11 wherein the pH of the lubricant is less than 8.5.

19. The process of claim 11 wherein the pH of the lubricant is between 4.5 and
8.0.

15 20. The process of claim 11 wherein said composition comprises water, C₁₀₋₁₂ alkyl
phosphate ester, ethylene diamine tetraacetic acid or its salts, alkalating
agent, didecyl dimethyl ammonium chloride, C₁₂₋₁₅ linear alcohol, and
phenol ethoxylated phosphate ester.

20

Added
a6